

### Abstract

To realize a motion compensation device capable of more appropriately compensating the movement of a video signal subjected to double-speed conversion. A motion vector between an image of a current field in a double-speed-converted video signal and an image of a reference field that is one frame or two frames later is detected, the pixels of the current field are shifted based on the motion vector and the pixels of the reference field are shifted in an opposite direction based on the motion vector. Then simple averaging or weighted average according to the shift amount is performed on the pixels of the current field and the pixels of the reference field to compensate the current field, thereby being capable of compensating the movement between fields so as to be much smoother than conventional cases.